

## WHAT IS CLAIMED is

1. A magnetic head assembly to record servo signals,  
that serves for positing of data recording magnetic heads and  
5 data reproducing magnetic heads, on magnetic tapes comprising:

a servo signal recording head of which sliding surface  
has a magnetic gap embedded thereon in order to record said  
servo signals onto a magnetic tape,

a guide block which is set adjacent to a position of  
10 up-stream of a line of magnetic tape passing said servo signal  
recording head and is slightly set back from said sliding  
surface of said servo signal recording head so that said  
magnetic tape slides an edge thereof and an edge of said guide  
block.

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2. A magnetic head assembly to record servo signals,  
that serves for positing of data recording magnetic heads and  
data reproducing magnetic heads, on magnetic tapes comprising:

a servo signal recording head of which sliding surface  
20 has a magnetic gap embedded thereon in order to record said  
servo signals onto a magnetic tape,

a guide block which is set adjacent to a position of  
down-stream of a line of magnetic tape passing said servo signal  
recording head and is slightly set back from said sliding  
25 surface of said servo signal recording head so that said  
magnetic tape slides an edge thereof and an edge of said guide  
block.

3. A magnetic head assembly to record servo signals,  
30 that serves for positing of data recording magnetic heads and  
data reproducing magnetic heads, on magnetic tapes comprising:

a servo signal recording head of which sliding surface  
has a magnetic gap embedded thereon in order to record said

servo signals onto a magnetic tape,

two guide blocks of which one guide block is set adjacent to a position of up-stream of a line of magnetic tape passing said servo signal recording head, the other guide block is set  
5 adjacent to a position of down-stream of a line of magnetic tape passing said servo signal recording head and both guide blocks are slightly set back from said sliding surface of said servo signal recording head so that said magnetic tape slides an edge thereof and an edge of said guide blocks.

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4. A magnetic head assembly according to Claim 1, wherein a lap angle  $\theta 1$  between said sliding surface of said recording head and a plane surface formed by an edge of said servo signal recording head and said edge of said guide  
15 block is in a range of 1.0 to 6.0 degrees.

5. A magnetic head assembly according to Claim 2, wherein a lap angle  $\theta 1$  between said sliding surface of said recording head and a plane surface formed by an edge of  
20 said servo signal recording head and said edge of said guide block is in a range of 1.0 to 6.0 degrees.

6. A magnetic head assembly according to Claim 3, wherein a lap angle  $\theta 1$  between said sliding surface of  
25 said recording head and a plane surface formed by an edge of said servo signal recording head and said edge of said guide block is in a range of 1.0 to 6.0 degrees.

7. A magnetic head assembly according to Claim 1,  
30 wherein said guide block is, at least at a portion of said edge, made of a material which has hardness of more than 1200 Vickers hardness.

8. A magnetic head assembly according to Claim 2, wherein said guide block is, at least at a portion of said edge, made of a material which has hardness of more than 1200 Vickers hardness.

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9. A magnetic head assembly according to Claim 3, wherein said guide block is, at least at a portion of said edge, made of a material which has hardness of more than 1200 Vickers hardness.

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10. A magnetic head assembly according to Claim 1, wherein said guide block is made of a material of  $\text{Al}_2\text{O}_3 \cdot \text{TiC}$ .

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11. A magnetic head assembly according to Claim 2, wherein said guide block is made of a material of  $\text{Al}_2\text{O}_3 \cdot \text{TiC}$ .

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12. A magnetic head assembly according to Claim 3, wherein said guide block is made of a material of  $\text{Al}_2\text{O}_3 \cdot \text{TiC}$ .

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13. A magnetic head assembly according to Claim 1, wherein said guide block is surface-finished for hardening.

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14. A magnetic head assembly according to Claim 2, wherein said guide block is surface-finished for hardening.

15. A magnetic head assembly according to Claim 3, wherein said guide block is surface-finished for hardening.

16. A magnetic tape servo writer having a magnetic head assembly according to Claim 1,

5 wherein another lap angle  $\theta_2$  between said plane surface formed by an edge of said servo signal recording head and said edge of said guide block and a plane formed by an edge of said guide block and an edge of a tape guide which is added to said guide block along a passing line of said magnetic tape is 0.5 to 2.0 degrees.

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17. A magnetic tape servo writer having a magnetic head assembly according to Claim 2,

15 wherein another lap angle  $\theta_2$  between said plane surface formed by an edge of said servo signal recording head and said edge of said guide block and a plane formed by an edge of said guide block and an edge of a tape guide which is added to said guide block along a passing line of said magnetic tape is 0.5 to 2.0 degrees.

20 18. A magnetic tape servo writer having a magnetic head assembly according to Claim 3,

25 wherein another lap angle  $\theta_2$  between said plane surface formed by an edge of said servo signal recording head and said edge of said guide block and a plane formed by an edge of said guide block and an edge of a tape guide which is added to said guide block along a passing line of said magnetic tape is 0.5 to 2.0 degrees.